

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027709**Date Inspected:** 06-Jun-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Fred Michels**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS Tower**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At Tower elevation 65 meter, QA randomly observed ABF/JV qualified Rory Hogan continuing to perform all position Shielded Metal Arc Welding (SMAW) fillet welding Crosby size number 4 padeye on tower skin plates. There were four padeyes being welded on tower skin plates A and E on tower shafts South and East while there are only two being welded padeyes on tower skin plate A of tower shafts North and West. The padeyes are also being welded per Contract Change Order (CCO) #201 and per Caltrans approved drawing Tower Access Detail #30.

Prior welding, ABF foreman Rory Hogan was noted laying out the location of the padeyes while another ABF personnel was noted grinding off the paint on the tower where the padeye will be welded. After grinding, the same personnel preheated the tower skin plate to required temperature of more than 225°F. After reaching the required preheat temperature, ABF welder Rory Hogan performed the tack welding using SMAW with 3.2mm diameter E7018H4R electrode with measured working current of 130 amperes on the mentioned electrode.

As soon as the padeye is tack welded, the welder immediately preheated the tower skin plate and the padeye itself to the required preheat temperature of more than 225°F. The welder then fully fillet welded the Crosby Padeye to 5mm all around fillet using the same electrode and size. During fillet welding, ABF QC Fred Michels was observed monitoring the preheat temperature and working current.

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At the end of the shift, the welder has completed fillet welding a total of 12 padeyes at tower four shafts elevation 65 meters.



## Summary of Conversations:

No significant conversation occurred today.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

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**Inspected By:** Lizardo, Joselito

Quality Assurance Inspector

**Reviewed By:** Levell, Bill

QA Reviewer

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